6-18-2007

Armyworms could be a problem in no-till corn

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Armyworms could be a problem in no-till corn

by Marlin E. Rice, Department of Entomology

During the week of June 10-16, I was catching nearly 100 armyworm adults a night in my blacklight trap in Ames. These large trap catches suggest that the armyworm population is very high, at least in central Iowa, and maybe elsewhere in the state because I received reports of "corn borer-like moths" from southwestern and western Iowa. These large moth flights should serve as an early warning of potential armyworm problems. Armyworm moths are about twice the size of European corn borer adults, and they have a small, white dot in the center of each forewing.

European corn borer adults are similar in shape to armyworms, but they are about half the size and do not have small white dots on the front wings. (Marlin E. Rice)

Armyworms rarely cause losses in conventional-tilled fields, but they should be scouted for in minimum- or no-tilled fields with any kind of living ground cover. Armyworms caused defoliation problems in wheat in Missouri last month, and it is the adults from these larvae that are probably migrating into Iowa now. The moths will be attracted to fields that were planted into a cover crop, such as rye, or where grassy weeds, such as foxtail, exist. Females lay their eggs on the rye or grass and the young larvae feed on the leaves. After consuming the grass (or if the grass is killed with a herbicide), the larvae move onto the corn. They usually confine their feeding to the leaf margins except when populations are very large; then they consume

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all the leaves except for the tougher midrib. Feeding starts on the lower leaves and as these leaves are eaten, the armyworms move to the upper leaves. Larvae do not tunnel into the stalk, and they do not feed on the growing point, but a field can be completely defoliated in a couple of days when both the armyworms themselves and the population is large. Corn fields that have grassy weeds sprayed with a herbicide should be closely scouted as the weeds begin to die. Armyworms, if present, will move immediately to the corn and start to defoliate.

Armyworm defoliation to a corn field in western Iowa. (Marlin E. Rice)

Fortunately, young corn plants have a remarkable ability to compensate for early-season defoliation.

Experiments at Iowa State University have shown that corn in the 7- to 8- and 9- to 10-leaf growth stages that sustained 50 percent defoliation in one day exhibited only a 2-3 percent and 4-6 percent yield loss, respectively. For corn that is in the 7- to 8-leaf stage, treatment (see table) of armyworms should be considered when larvae are less than ¾ inch in length, the population exceeds eight larvae per plant, and 25 percent of the leaf area has been removed. If armyworms are less than ¾ inch in length, they still have another week or so to feed. If larvae are mostly 1½ inches in length, then they are nearly done feeding and very little additional leaf injury will occur, so the field should not be sprayed as it would be too late for the insecticide to be of any economic benefit.

Table 1. Common insecticides labeled for armyworms.

Insecticide	Rater per Acre (Low and High Rates)	Comments
Ambush 2E*	6.4-12.8 ounces	
Asana XL*	5.8-9.6 ounces	
Baythroid XL*	1.6-2.8 ounces	1st and 2nd instars only
Lorsban 4E	1-2 pints	
Mustang	3.4-4.3 ounces	
Penncap-M*	2-3 pints	
Pounce 3.2EC*	4-8 ounces	

Sevin XLR+	2-4 pints
Warrior 1E or T*	2.56-3.84 ounces

Read and follow all label directions.

*Restricted use pesticide.

Armyworms will eat all the tender leaf tissue, leaving only the stalk and midribs. (Marlin E. Rice)

This article originally appeared on pages 187-188 of the IC-498(15) -- June 18, 2007 issue.

Updated 06/22/2007 - 3:41pm